

## Methyl Tertiary Butyl Ether (MTBE)

### What is MTBE?

Methyl tertiary butyl ether (MTBE) is a chemical used in making gasoline. MTBE contains oxygen and when added to gasoline it promotes more complete combustion and reduces the release of air pollutants from the vehicle exhaust.

### Why is MTBE used in gasoline?

MTBE has been used in gasoline in the United States (U.S.) since the 1970's, principally to increase octane. Since 1992, MTBE has also been used in gasoline in over 15 states to meet the federal Clean Air Act, which requires oxygenates to be added to winter gasoline in areas with high carbon monoxide levels. In 1995, MTBE was added to federal reformulated gasoline.

MTBE has become the oxygenate of choice by refineries manufacturing federal Reformulated Gasoline (RFG) and California RFG. Refiners have basically designed their refineries around the ability to use MTBE to meet federal and state RFG requirements. Other oxygenates that can be used as gasoline blending components include other ethers and alcohols, such as ethanol.

### What are the concerns with the use of MTBE?

MTBE has been found in groundwater in many areas of the U.S., and to a much lesser extent in drinking water supplies. Because of its increased use over the last several years, gasoline with MTBE has leaked into water from underground storage tanks. MTBE travels further through groundwater and takes longer to degrade than other gasoline components, in addition to having a foul odor and taste.

### What is being done?

Because of the concerns regarding MTBE and water contamination, on March 26, 1999, Governor Davis directed that MTBE be phased out no later than December 31, 2002. In response to the directive, the Air Resources Board (ARB) revised the California Reformulated Gasoline (CaRFG) Regulations. The CaRFG regulations require the use of ethanol rather than MTBE. It also makes it easier for refiners to produce gasoline without MTBE while preserving the emissions benefits of the successful CaRFG program. The CaRFG Regulations become effective December 21, 2002. Today, refiners are minimizing the use of MTBE in areas where oxygenates are not required by federal regulations. Most regular grade gasoline in the San Francisco Bay area does not contain MTBE. Also, all grades of gasoline sold in the Lake Tahoe area do not contain MTBE.

### For more information

Please contact the ARB's Public Information Office at (916) 322-2990, or ARB's web site at <http://www.arb.ca.gov/cbg/cbg.htm>. You may obtain this document in an alternative format by contacting ARB's ADA Coordinator at (916) 322-4505 (voice); (916) 324-9531 (TDD, Sacramento area only); or (800) 700-8326 (TDD, outside Sacramento).

***The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our web site: [www.arb.ca.gov](http://www.arb.ca.gov).***